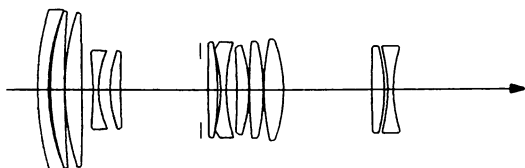


F3.5(22)-4.5 (2588-100)

MINOLTA MAXXUM AF ZOOM 70-210 F3.5(22)-4.5 (2588-600)

LENS



Construction	: 12 elements in 12 groups
Type	: 4 -component mechanical-compensation zoom lens
Coating	: Minolta Achromatic
Angle of view	: 34°-12°
Lens mount	: Minolta A mount
Diaphragm	: Automatic preset diaphragm
Lens signal contact	: 5 contacts
f No.	: Maximum···WIDE 3.5 TELE4.5 Minimum ···WIDE 22 TELE 27 Full-stop setting —5.5 stops
Diaphragm	: 9 blades

FOCUSING

Focusing : AF, FA, M
Type : Front-focusing
Minimum focusing distance : 1.1m

Distance scale : $\frac{-M-}{1.1} \quad \frac{6}{1.5} \quad \frac{7}{1.7} \quad \frac{10}{2} \quad \frac{15}{2.5} \quad \frac{30}{4} \quad \frac{\infty}{10} \quad \frac{(ft)}{(m)}$

Infrared correction scale : None

Macro capability : 1/3.9× (maximum magnification).
(AF, FA, or M mode is usable.)

Depth-of-field scale : None

ZOOMING

Type : Mechanical-compensation zoom lens,
Rotary 2-ring

Zooming scale : 210 135 100 70

Zooming ratio : 3×

DIMENSIONS & WEIGHT

Dimensions : $\phi 72.5$ (maximum diameter) \times
100 (maximum length) mm

Weight : 420g

Filter-thread diameter : $\phi 55\text{mm}$ (P=0.75)

Lens hood diameter : $\phi 55\text{mm}$ (Clip-on type)

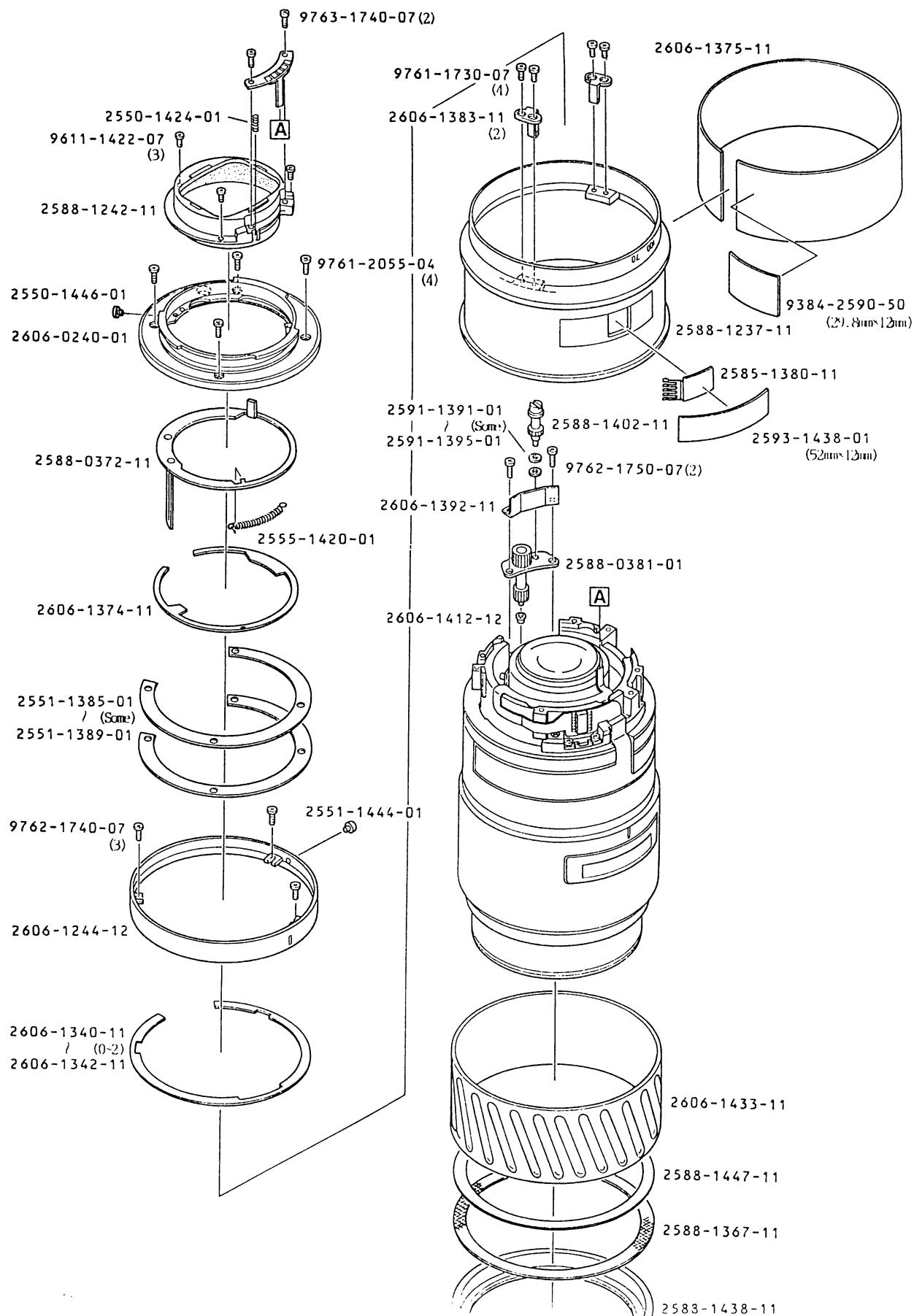
ACCESSORIES

Lens case : 6606-511

Lens hood : 6588-810

I N D E X

PART NO.	PAGE	PART NO.	PAGE	PART NO.	PAGE
2588-0101	----- 2	2606-1379	----- 3	2593-1438	----- 1
2588-0103	----- 4	2585-1380	----- 1	2588-1438	----- 1
2588-0104	----- 4	2606-1382	----- 2	2588-1439	----- 3
2588-0105	----- 2	2606-1383	----- 1	2551-1444	----- 1
2588-0110	----- 3	2606-1384	----- 3	2550-1446	----- 1
2588-0113	----- 4	2551-1385	----- 1	2588-1447	----- 1
2588-0232	----- 4	2551-1386	----- 1	2588-1451	----- 4
2606-0240	----- 1	2551-1387	----- 1	2606-1452	----- 3
2588-0352	----- 4	2551-1388	----- 1	2606-1453	----- 3
2606-0371	----- 4	2551-1389	----- 1	2606-1460	----- 4
2588-0372	----- 1	2606-1390	----- 3	2606-1461	----- 4
2588-0381	----- 1	2591-1391	----- 1	2606-1462	----- 4
2606-0430	----- 3	2588-1391	----- 3	2606-1463	----- 4
2588-0501	----- 3	2591-1392	----- 1	2606-1464	----- 4
2588-1102	----- 2	2606-1392	----- 1	2606-1465	----- 4
2606-1112	----- 4	2591-1393	----- 1	2606-1466	----- 4
2588-1230	----- 3	2591-1394	----- 1	2606-1467	----- 4
2588-1236	----- 3	2591-1395	----- 1	2606-1468	----- 4
2588-1237	----- 1	2588-1402	----- 1	2588-1469	----- 2
2588-1242	----- 1	2606-1412	----- 1	2588-1470	----- 2
2606-1244	----- 1	2606-1413	----- 4	2588-1471	----- 2
2606-1340	----- 1	2606-1414	----- 2	2588-1602	----- 2
2606-1341	----- 1	2606-1415	----- 2	2588-1801	----- 2
2606-1342	----- 1	2606-1416	----- 2	2588-1802	----- 2
2588-1351	----- 4	2588-1417	----- 4	9384-2190-50----- 2, 3	
2588-1355	----- 2	2588-1418	----- 4	9384-2590-50----- 1	
2606-1357	----- 4	2588-1419	----- 4	9611-1422-07----- 1	
2606-1361	----- 2	2555-1420	----- 1	9761-1720-07----- 3	
2606-1362	----- 2	2606-1421	----- 3	9761-1730-07----- 1	
2606-1363	----- 2	2606-1423	----- 3	9761-1740-07----- 2	
2606-1364	----- 2	2550-1424	----- 1	9761-2055-04----- 1	
2606-1365	----- 2	2606-1427	----- 4	9762-1740-07----- 1	
2606-1366	----- 2	2606-1432	----- 3	9762-1750-07----- 1	
2588-1367	----- 1	2606-1433	----- 1	9762-1760-07----- 2	
2606-1374	----- 1	0656-1434	----- 3	9763-1740-07----- 1	

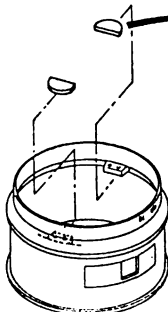


2588 PARTS MODIFICATION LIST

1. 矢印 (⇒, ⇐) は互換性を示しています。
 ・ ⇒○ (×) --- 旧部品を新部品に交換しても良い (いけない)。
 ・ × (○)⇐ --- 新部品を旧部品に交換してはいけない (良い)。
2. その部品単独の変更ではなく、関連変更部品がある場合は、表の縦の列で関連変更部品を示しています。
 ・ 表の最後の (⇒, ⇐) は、関連部品セットでの互換性を示しています。
3. 変更部品には通しNo. を付け、以後変更された場合には通しNo. に補助No. (-2, -3, ...) を付けて示します。
 修理情報がある場合は、サブリNo. を右上に示します。
4. 新設部品は部品名称を記載します。それ以外の部品名称はパーツリストを参照して下さい。

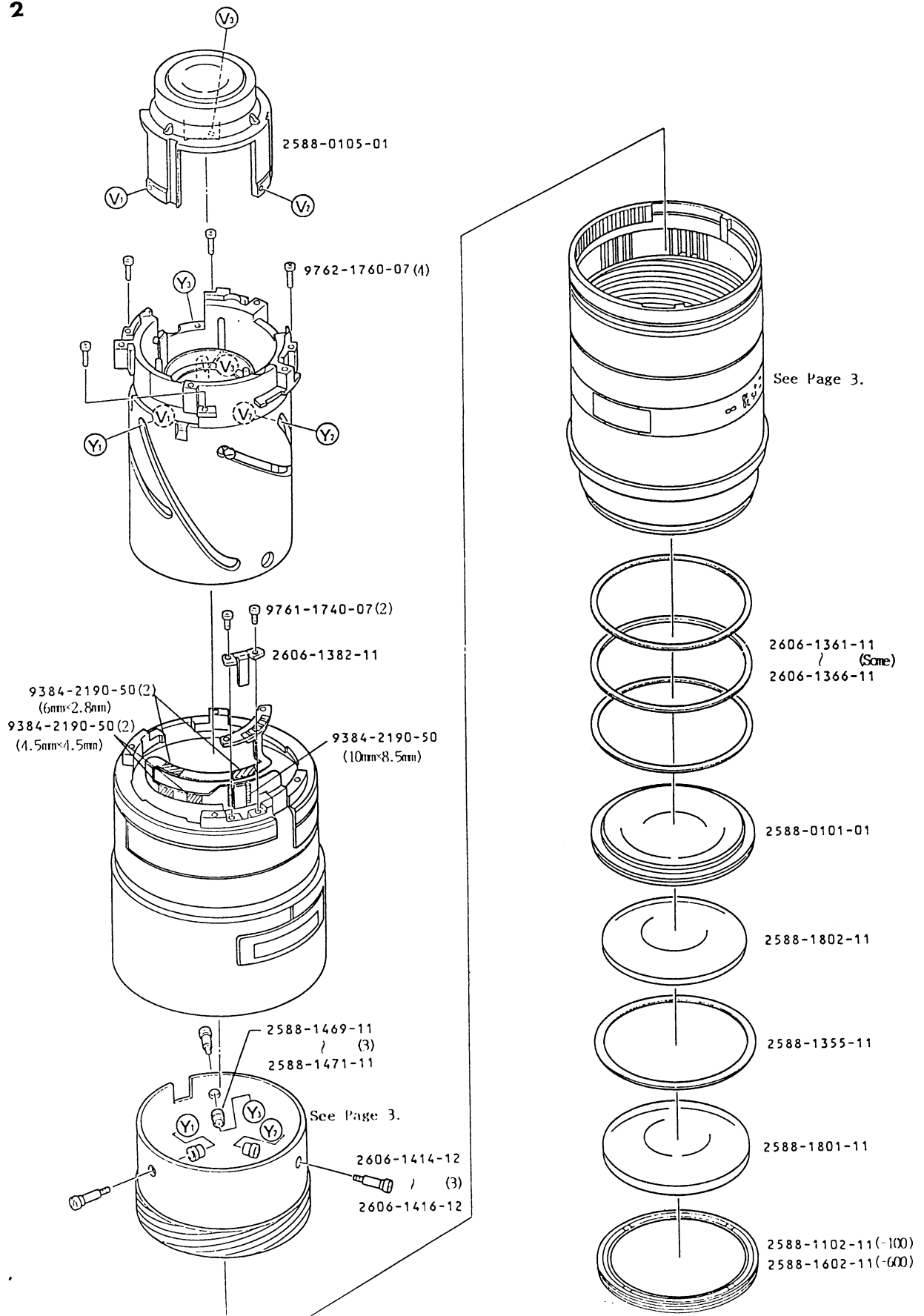
1. Arrows (⇒, ⇐) show parts interchangeability.
 ・ ⇒○ (×) ---- Previous part is (is not) replaceable by new one.
 ・ × (○)⇐ ---- New part is not (is) replaceable by previous one.
2. When part is not replaceable as a single one, vertical column shows the related parts.
 ・ Arrows (⇒, ⇐) at base of table show interchangeability of parts as a set.
3. Modified parts group is numbered serially. Serial number has auxiliary number (-2, -3, ...), which is renewed when modification is carried out. Supplementary information No., if any, is shown on the table.
4. Part name of newly added part is shown in the table. Refer to Parts List in Service Manual for other parts.

■ No.1 Parts List P.1

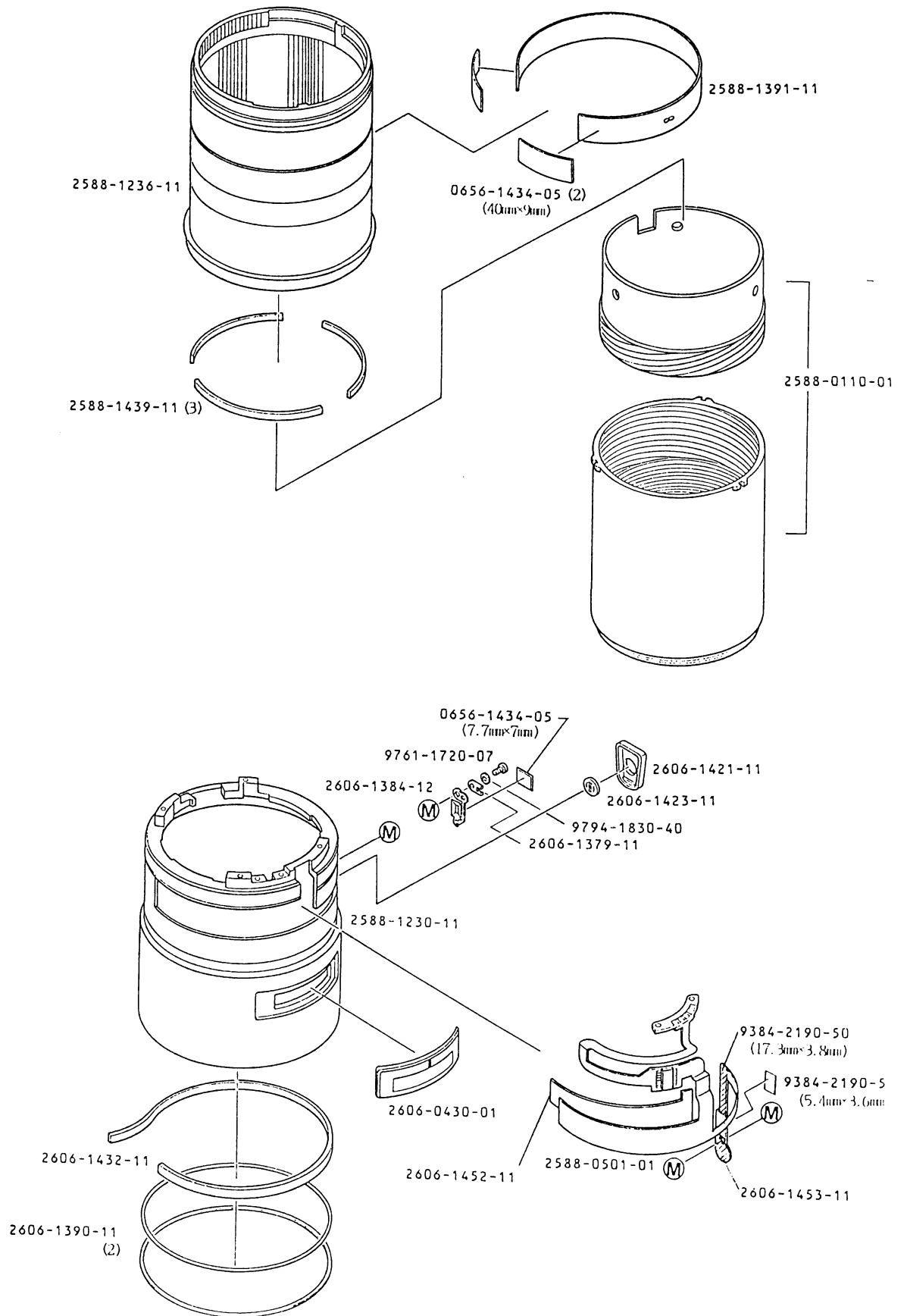
Previous				2588-1475-11(2)	New
使用しない Not used		 <p>2588-1475-11(2)</p> <p>ズーム調整ゴム Zoom adjusting rubber</p>			

PART NO.	PART NAME		QTY.
2606-0240-01	BAYONET MOUNT SET	バヨネットマウントセット	1
2588-0372-11	PRESET RING SET	プリセットリングセット	1
2588-0381-01	GEAR SET	ギヤ台板セット	1
2588-1237-11	ZOOM RING	ズーム操作環	1
2588-1242-11	LIGHT SHIELD RING	後遮光筒	1
2606-1244-12	ZOOM RING SET RING	ズーム環抜け止め	1
2606-1340-11	WASHER-A (T=0.05)	ガタ調整ワッシャーA] (0~2)
2606-1341-11	WASHER-B (T=0.07)	ガタ調整ワッシャーB	
2606-1342-11	WASHER-C (T=0.1)	ガタ調整ワッシャーC	
2588-1367-11	LIGHT SHIELD SHEET	光漏れ防止シート	1
2606-1374-11	PRESET RING PRESSURE	プリセットリング押え	1
2606-1375-11	ZOOM RING PREVENTION BOARD	ズーム環保護板	1
2585-1380-11	BRUSH	ブラシ	1
2606-1383-11	ZOOM OPERATION PLATE	ズーム連動板	2
2551-1385-01	BACK WASHER-A (T=0.05)	バックワッシャー] (Some)
2551-1386-01	BACK WASHER-B (T=0.07)	バックワッシャー	
2551-1387-01	BACK WASHER-C (T=0.1)	バックワッシャー	
2551-1388-01	BACK WASHER-D (T=0.2)	バックワッシャー] (Some)
2551-1389-01	BACK WASHER-E (T=0.5)	バックワッシャー	
2591-1391-01	ADJUSTMENT WASHER (T=0.05)	カブラー調整ワッシャー	
2591-1392-01	ADJUSTMENT WASHER (T=0.07)	カブラー調整ワッシャー] (Some)
2606-1392-11	GEAR COVER	ギヤカバー	
2591-1393-01	ADJUSTMENT WASHER (T=0.1)	カブラー調整ワッシャー	
2591-1394-01	ADJUSTMENT WASHER (T=0.2)	カブラー調整ワッシャー] (Some)
2591-1395-01	ADJUSTMENT WASHER (T=0.5)	カブラー調整ワッシャー	
2588-1402-11	COUPLER	カブラー	1
2606-1412-12	AXIS RECEIVER	ギヤA軸受	1
2555-1420-01	MAIN SPRING	メインスプリング	1
2550-1424-01	SPRING	アーススプリング	1

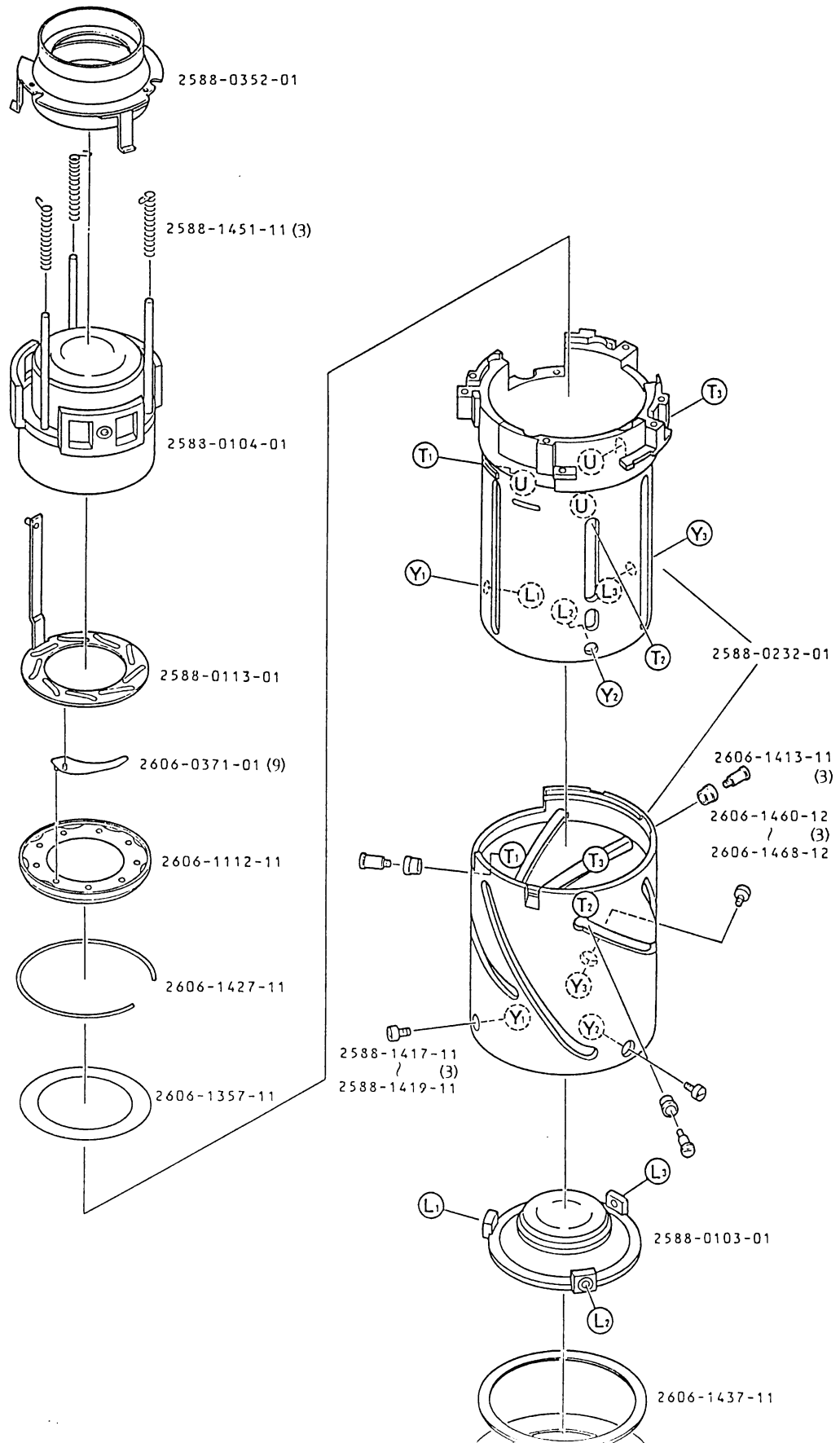
PART NO.	PART NAME		QTY.
2606-1433-11	RUBBER RING	ズーム操作環ゴムリング	1
2593-1438-01	TAPE (PER/ROLL)	補強テープ	1
2588-1438-11	RUBBER RING	距離環ゴムリング	1
2551-1444-01	BAYONET POINT	バヨネット標点	1
2550-1446-01	SCREW	ストッパービス	1
2588-1447-11	TAPE	光漏れ防止シートセットテープ	1
9384-2590-50	MENDING TAPE (1R/50M)	メンディングテープ	1
9611-1422-07	PHILLIPS TYPE SCREW	十字穴付なべ小ねじ	3
9761-1730-07	TAP TITE SCREW	十字穴付タップタイトねじ	4
9761-2055-04	TAP TITE SCREW	十字穴付タップタイトねじ	4
9762-1740-07	TAP TITE SCREW	十字穴付タップタイトねじ	3
9762-1750-07	TAP TITE SCREW	十字穴付タップタイトねじ	2
9763-1740-07	TAP TITE SCREW	十字穴付タップタイトねじ	2



PART NO.	PART NAME		QTY.
2588-0101-01	FRONT LENS BARREL SET	前玉枠セット	1
2588-0105-01	4TH MOVING BARREL SET	第4群移動枠セット	1
2588-1102-11	G1.G2 PRESSURE RING	G1. G2押え	1
2588-1355-11	2ND LIGHT SHIELD PLATE	第2遮光板	1
2606-1361-11	ADJUSTING WASHER-A (T=0.05)	像点移動調整ワッシャA	<div style="display: flex; align-items: center;"> <div style="border-left: 1px solid black; height: 100px; margin-right: 5px;"></div> <div style="writing-mode: vertical-rl; text-orientation: mixed;">(Some)</div> </div>
2606-1362-11	ADJUSTING WASHER-B (T=0.06)	像点移動調整ワッシャB	
2606-1363-11	ADJUSTING WASHER-C (T=0.07)	像点移動調整ワッシャC	
2606-1364-11	ADJUSTING WASHER-D (T=0.1)	像点移動調整ワッシャD	
2606-1365-11	ADJUSTING WASHER-E (T=0.2)	像点移動調整ワッシャE	
2606-1366-11	ADJUSTING WASHER-F (T=0.5)	像点移動調整ワッシャF	
2606-1382-11	FOCUS STOPPER	フォーカスストッパー	1
2606-1414-12	GUIDE PIN-B (D=3.61)	案内ピンB	<div style="display: flex; align-items: center;"> <div style="border-left: 1px solid black; height: 40px; margin-right: 5px;"></div> <div style="writing-mode: vertical-rl; text-orientation: mixed;">3</div> </div>
2606-1415-12	GUIDE PIN-C (D=3.6)	案内ピンC	
2606-1416-12	GUIDE PIN-D (D=3.59)	案内ピンD	
2588-1469-11	GUIDE ROLLER-A	第1. 4群案内ローラーA	<div style="display: flex; align-items: center;"> <div style="border-left: 1px solid black; height: 40px; margin-right: 5px;"></div> <div style="writing-mode: vertical-rl; text-orientation: mixed;">3</div> </div>
2588-1470-11	GUIDE ROLLER-B	第1. 4群案内ローラーB	
2588-1471-11	GUIDE ROLLER-C	第1. 4群案内ローラーC	
2588-1602-11	G1.G2 PRESSURE RING	G1. G2押え	1
2588-1801-11	G1	G1	1
2588-1802-11	G2	G2	1
9384-2190-50	DOUBLE-FACED TAPE (PER ROLL)	両面テープ	5
9761-1740-07	TAP TITE SCREW	十字穴付タップタイトねじ	2
9762-1760-07	TAP TITE SCREW	十字穴付タップタイトねじ	4



PART NO.	PART NAME		QTY.
2588-0110-01	HELICOID SET	ヘリコイドセット	1
2606-0430-01	DISTANCE SCALE WINDOW SET	距離目盛窓セット	1
2588-0501-01	FLEXIBLE PC BOARD SET	フレキセット	1
2588-1230-11	OUTER RING	固定保持環	1
2588-1236-11	FOCUSING RING	距離環	1
2606-1379-11	PRESSURE PLATE	クリック板押え板	1
2606-1384-12	CLICK PLATE	クリックプレート	1
2606-1390-11	RING	固定保持環補強リング	2
2588-1391-11	DISTANCE SCALE PLATE	距離目盛板	1
2606-1421-11	FOCUS HOLD BUTTON PLATE	フォーカスホールドボタン台座	1
2606-1423-11	FOCUS HOLD BUTTON	フォーカスホールドボタン	1
2606-1432-11	FRICTION TAPE-A	摩擦布A	1
0656-1434-05	SCOTCH TAPE (PER ROLL)	補強テープ	3
2588-1439-11	FRICTION TAPE-B	摩擦布B	3
2606-1452-11	TAPE	フレキセットテープB	1
2606-1453-11	TAPE	フレキセットテープC	1
9384-2190-50	DOUBLE-FACED TAPE (PER ROLL)	両面テープ	2
9761-1720-07	TAP TITE SCREW	十字穴付タップタイトねじ	1
9794-1830-40	WASHER	薄ワッシャー	1



PART NO.	PART NAME		QTY.
2588-0103-01	2ND MOVING BARREL SET	第2移動棒セット	1
2588-0104-01	3RD MOVING BARREL SET	第3群移動棒セット	1
2588-0113-01	DIAPHRAGM OPERATION PLATE SET	絞り操作板セット	1
2588-0232-01	ZOOM CAM RING SET	ズームカム環セット	1
2588-0352-01	MOVING LIGHT SHIELD PLATE SET	移動遮光筒セット	1
2606-0371-01	DIAPHRAGM BLADE SET	絞り羽根セット	9
2606-1112-11	DIAPHRAGM PRESSURE RING	絞り押え環	1
2588-1351-11	1ST LIGHT SHIELD PLATE	第1遮光板	1
2606-1357-11	4TH LIGHT SHIELD PLATE	第4遮光板	1
2606-1413-11	GUIDE PIN-A	案内ピンA	3
2588-1417-11	FIX PIN A	第2群固定ピンA	3
2588-1418-11	FIX PIN B	第2群固定ピンB	
2588-1419-11	FIX PIN C	第2群固定ピンC	
2606-1427-11	SPRING WASHER-B	スプリングワッシャB	1
2606-1437-11	TAPE	第1遮光板セットテープ	1
2588-1451-11	SPRING	遮光板押えSP	3
2606-1460-12	GUIDE ROLLER-A (D1=4.04 D2=3.75)	案内ローラA	3
2606-1461-12	GUIDE ROLLER-B (D1=4.04 D2=3.74)	案内ローラB	
2606-1462-12	GUIDE ROLLER-C (D1=4.04 D2=3.73)	案内ローラC	
2606-1463-12	GUIDE ROLLER-D (D1=4.03 D2=3.75)	案内ローラD	
2606-1464-12	GUIDE ROLLER-E (D1=4.03 D2=3.74)	案内ローラE	
2606-1465-12	GUIDE ROLLER-F (D1=4.03 D2=3.73)	案内ローラF	
2606-1466-12	GUIDE ROLLER-G (D1=4.02 D2=3.75)	案内ローラG	
2606-1467-12	GUIDE ROLLER-H (D1=4.02 D2=3.74)	案内ローラH	
2606-1468-12	GUIDE ROLLER-I (D1=4.02 D2=3.73)	案内ローラI	

REPAIR GUIDE

■ The contents of this manual are in accordance with the assembling procedure. Therefore, follow the reverse procedure when disassembling.

—Description of marks used—

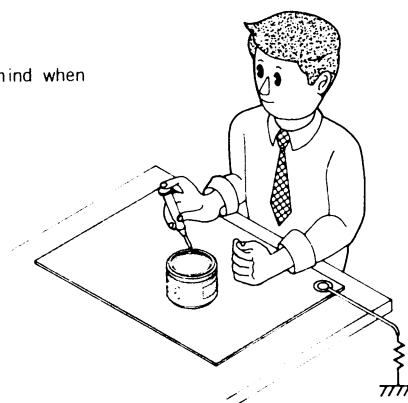
- **B** : Adhesive
- **S** : Solvent
- **A** : Anti-diffusion compound
- **G** : Lubricant
- **T** : Tool
- : Point of assembling and general caution

■ Assembling and adjusting procedure

① 3rd moving barrel, Moving light shield plate, Fixed barrel, Zoom cam ring, 2nd lens group set assembling.....	1
■ Aperture diameter adjusting, lens mount assembling.....	2
② 2nd lens group set, zoom cam ring set, 4th moving barrel set, outer ring, helicoid barrel assembling.....	3
③ Outer ring, flexible PC board set assembling.....	4
■ Outer ring, zoom cam ring, helicoid installing.....	4
④ Focusing ring, Lens barrel, Front lens group, Focus stopper, Gear set assembling.....	5
⑤ Zoom ring, Coupler, Bayonet mount, Back washer assembling.....	6
■ Focus shift/flange back adjusting.....	7
■ Aperture diameter checking.....	8
■ Description of focusing and zooming.....	9
■ Wiring schematic diagram and printed wiring diagram.....	10

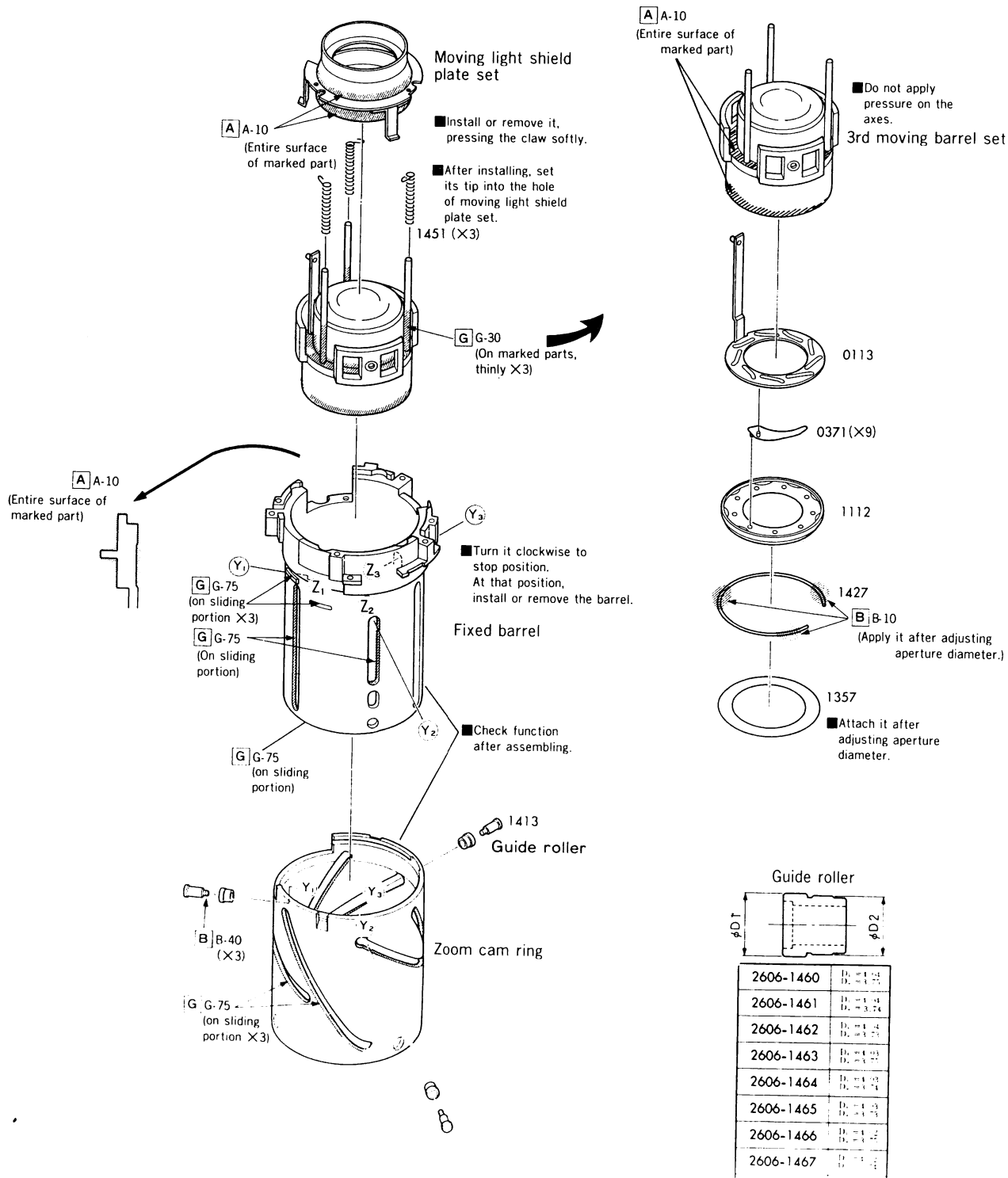
■ Precautions

- Since this lens uses many resin parts, keep the following in mind when assembling and adjusting.
Use liquid freon or alcohol when cleaning. Never use thinner, ketone or ether.
- Since MOS-IC is used in this lens, it is necessary take special precautions about static electricity.
When performing repairs, use the conductive mat without fail, as shown.
- Use "PROGRAM PACK Ver.6.4" or newer for Camera I/O Tester.



1 3rd moving barrel, Moving light shield plate, Fixed barrel, Zoom cam ring, 2nd lens group set

- ① Assemble the 3rd moving barrel set and moving light shield plate set.
- ② Assemble fixed barrel and zoom cam ring.
- ③ Fix ① and ② with screws.
- ④ After assembling, adjust aperture diameter.



Aperture diameter adjusting, Lens mount assembling

On this model, diaphragm blades are slightly left in light path at full-opening aperture setting. Also, aperture diameter changes by zooming.

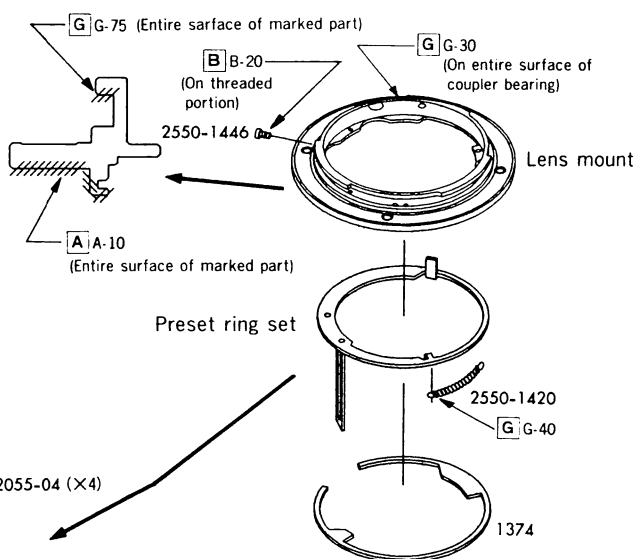
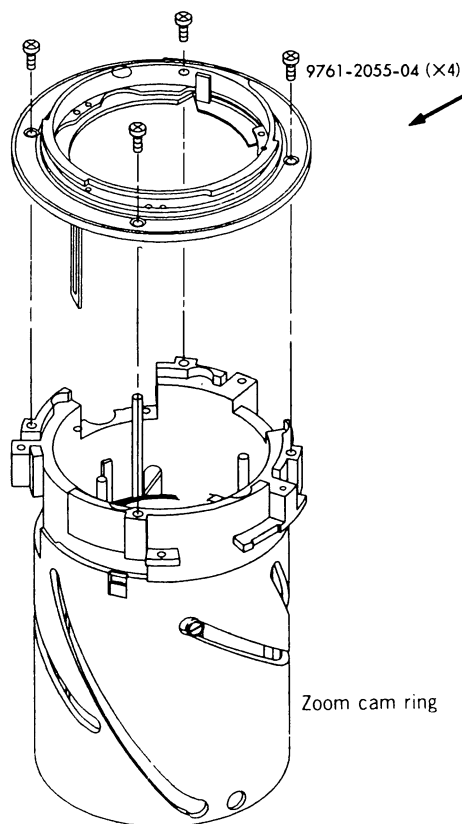
(Adjust aperture diameter as follows. Then, check it, according to the procedure on p.8 when assembling is completed.)

■ Tool : Aperture full-opening jig (2550-0110-75)

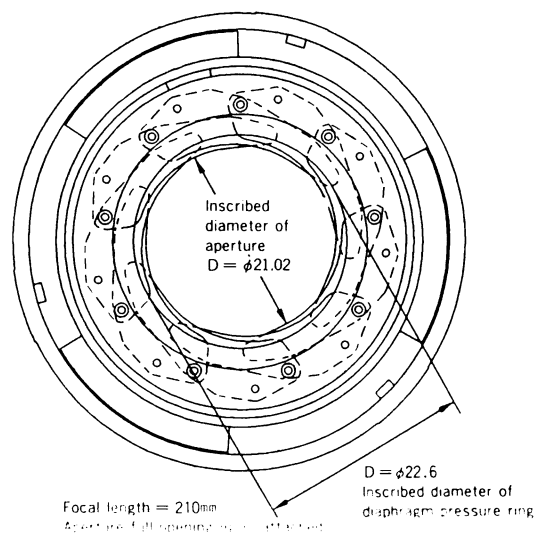
■ Adjusting procedure

- ① Assemble lens as fig.1.
- ② Set focal length to 210mm.
- ③ Attach the tool (aperture full-opening jig) to lens so that preset ring opens fully.
- ④ Rotate diaphragm pressure ring so that inscribed diameter of aperture is set as fig.2.

■ Fig. 1

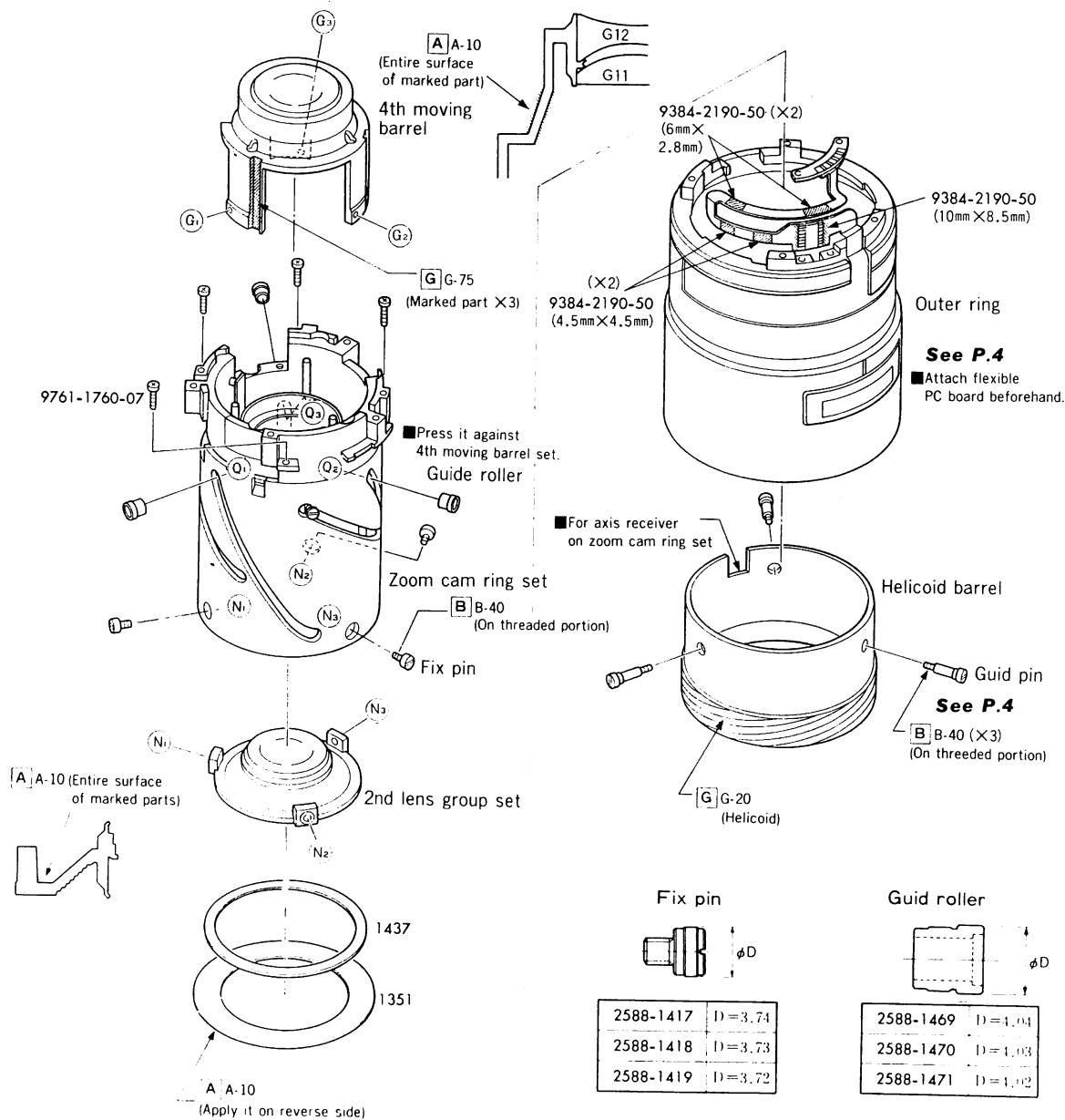


■ Fig. 2

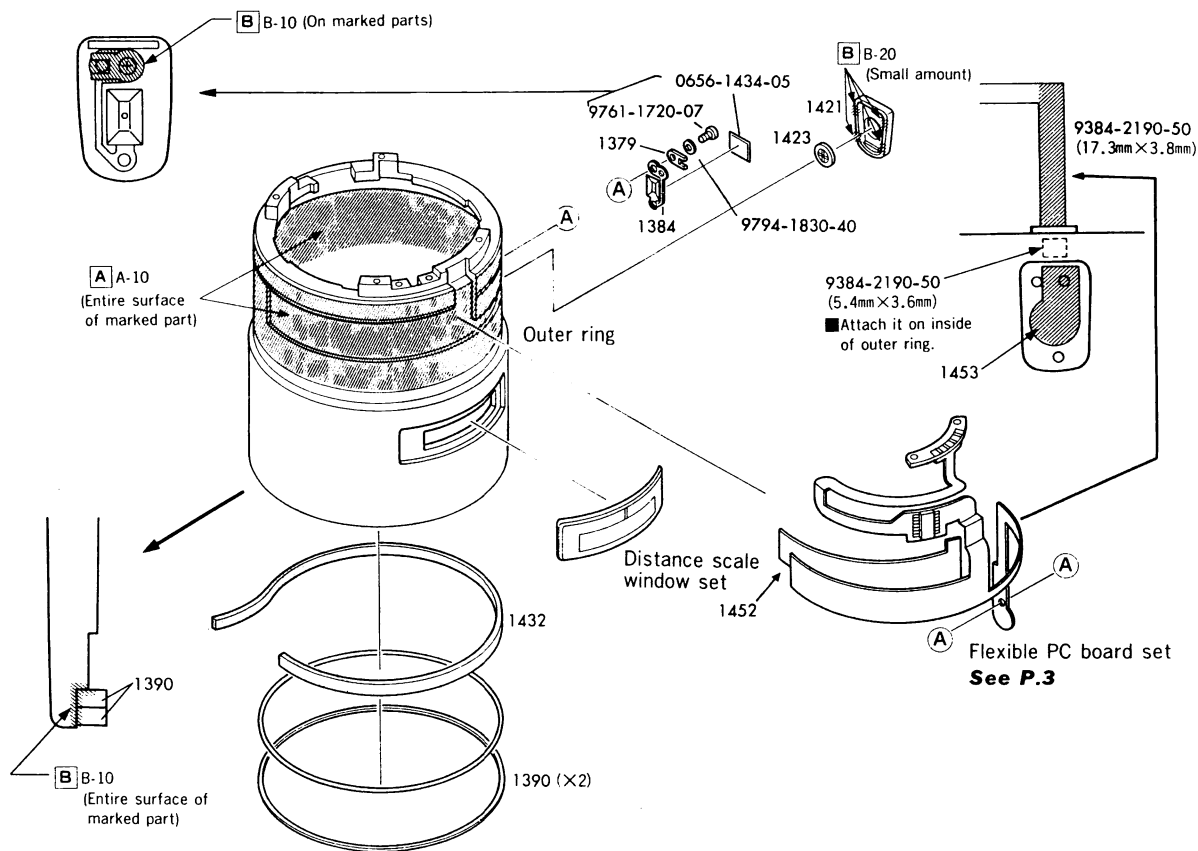


2 2nd lens group set, Zoom cam ring set, 4th moving barrel set, Outer ring, Helicoid barrel

- ① Rotate fixed barrel of zoom cam ring set to align holes for 2nd lens group pins, for attaching 2nd lens group set.
- ② Rotate the fixed barrel of zoom cam ring set clockwise until it stops.
Then, install 4th moving barrel set and guide roller.
- ③ Insert the zoom cam ring set into outer ring, taking care not to detach 4th moving barrel set.
(See p.4.)
- ④ Assemble helicoid barrel, then guide pins. (See p.4.)
- ⑤ Tighten screws to fix outer ring and zoom cam ring set.

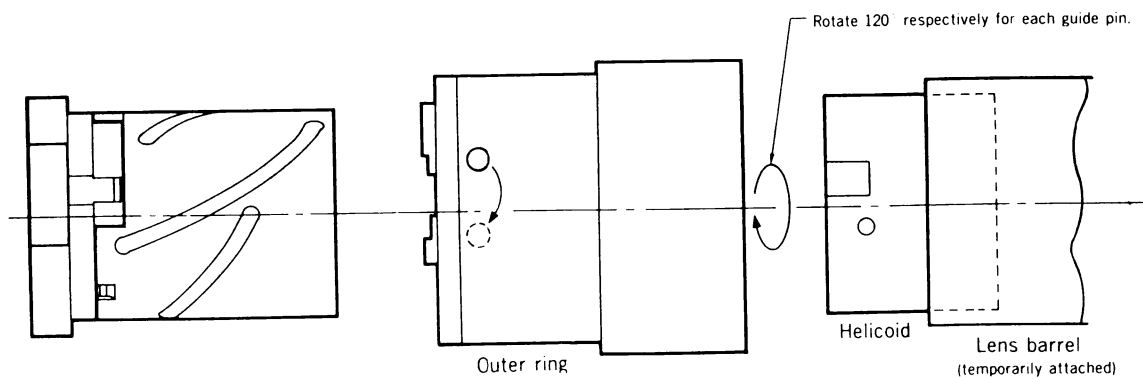


3 Outer ring, Flexible PC board set



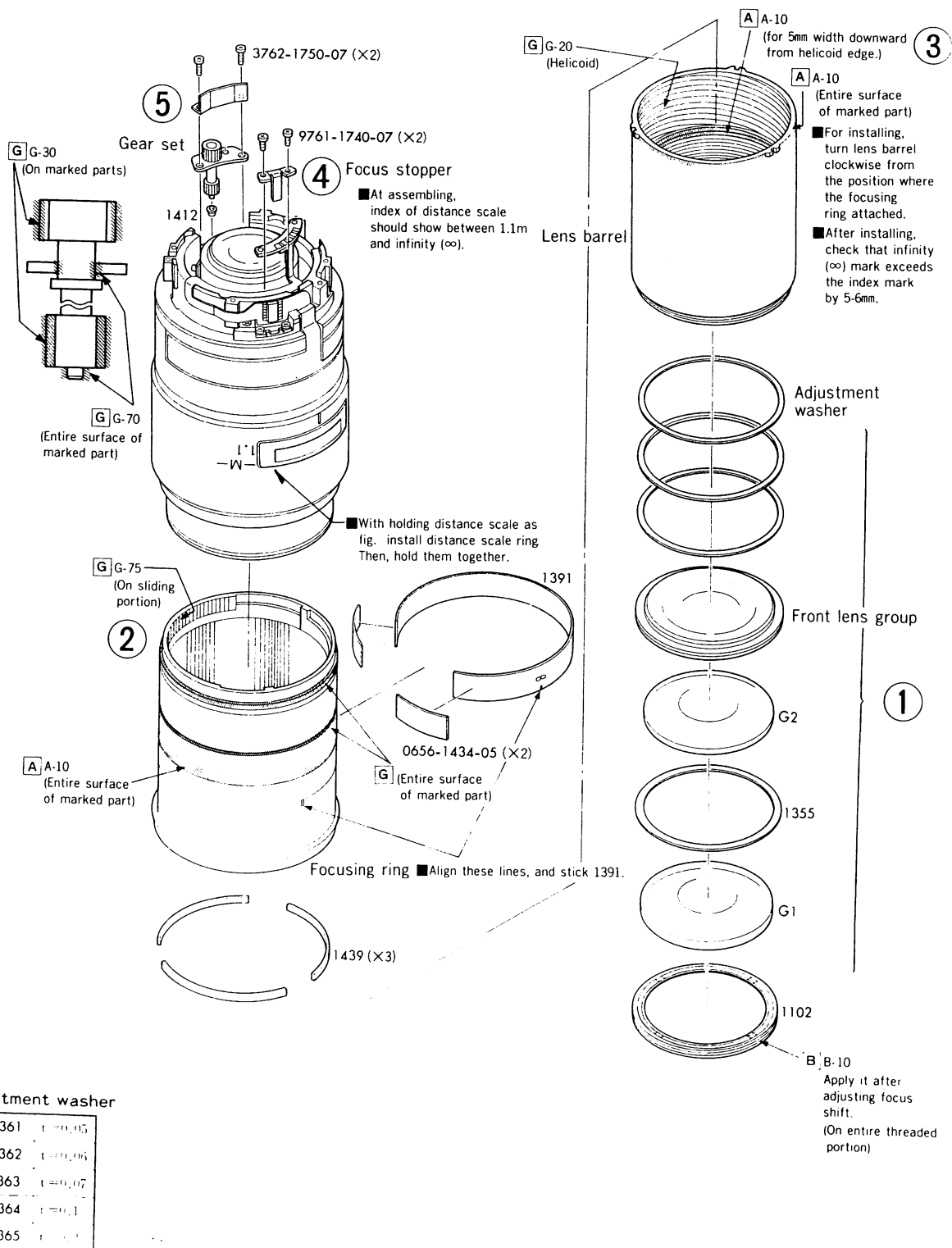
■ Outer ring, Zoom cam ring, Helicoid installing

- (1) Install outer ring and helicoid, setting them as below.
- (2) Rotate outer ring, and tighten guide pins (×3) through the hole on outer ring.



4 Focusing ring, Lens barrel, Front lens group, Focus stopper, Gear set

■ Assemble the parts in order of ① — ⑤.

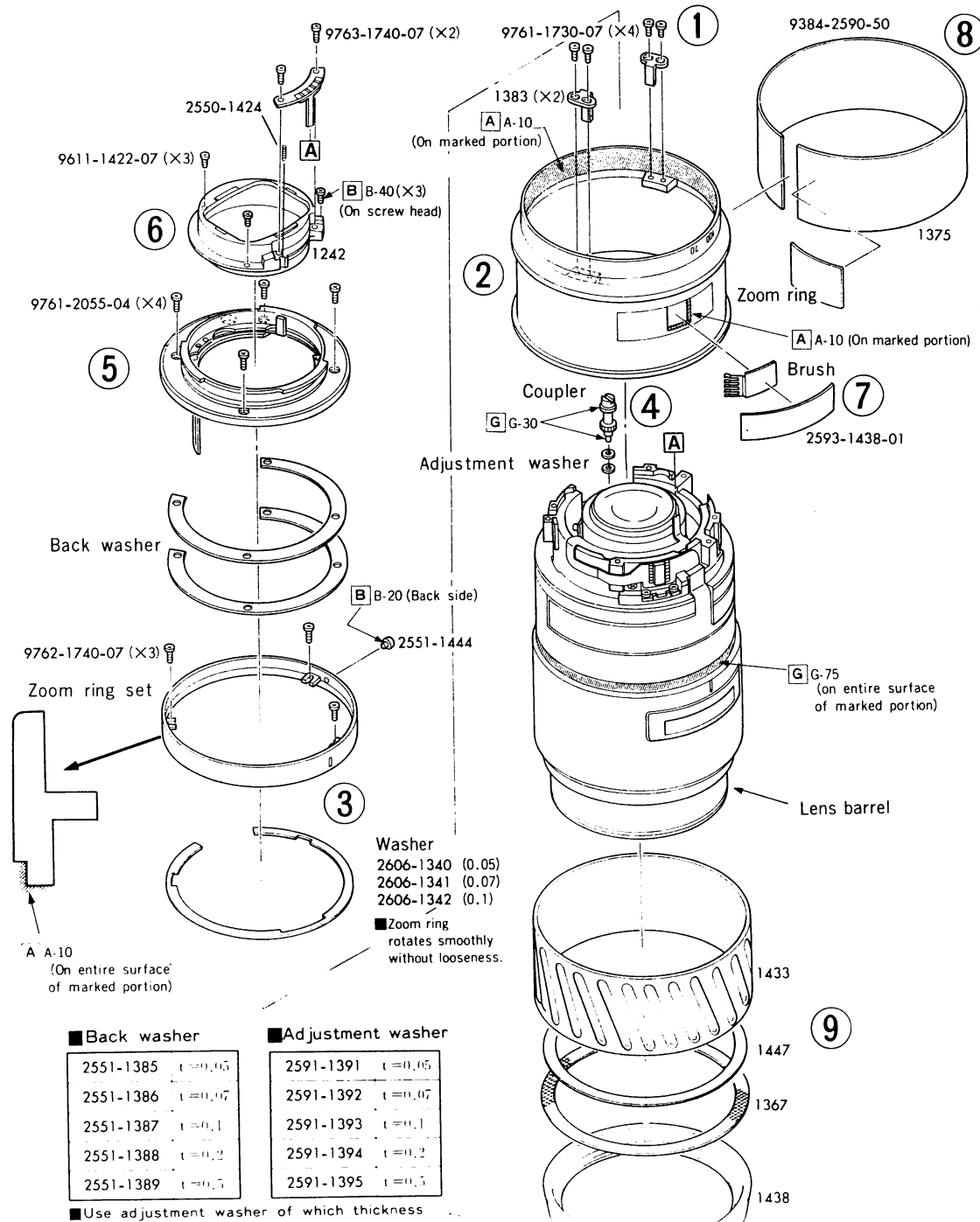


5 Zoom ring, Coupler, Bayonet mount, Back washer

- (1) Assemble the parts in order of ①—⑦.
(2) Perform adjusting of p.7
(3) Then, assemble the parts in order of ⑧—⑨.

Zoom ring installing procedure

- (1) Tighten 1383 (×2) temporarily.
(2) Pull lens barrel to set focal length to 135mm, then install zoom ring.
(3) Holding zoom ring, tighten screws.



■ Focus shift/flange back adjusting

■ After assembling ①—⑦, adjust and check as follows.

(1) Adjust focus shift/flange back.

Focus shift adjustment procedure

① Measure flange back value at focal length $f=210\text{mm}$ ($=f't$) and at $f=70\text{mm}$ ($=f'w$), referring to pp. 3-4 of "General checking/adjusting procedure".

② Calculate the thickness of adjusting washer ($=T$) from the formula below.

T : Thickness of adjusting washer (mm)

$$T = (f't - f'w) / 3.32$$

$f't$: Flange back at $f=210\text{mm}$ (mm)

(1/100mm)

$f'w$: Flange back at $f=70\text{mm}$ (mm)

③ If " T " is positive value, increase the thickness of adjusting washer for that value.

If negative, decrease the thickness for that value.

(Adjusting washer: 2606-1361 to-1366, cf. p. 7)

④ Measure flange back at each focal length ($f=100, 200, 300$) and make sure that focus shift is within the allowable range.

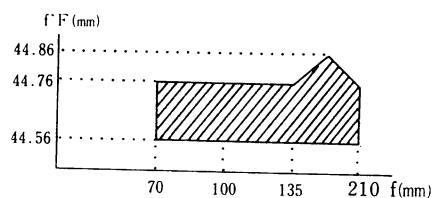
Flange back adjustment

(Refer to p. 5 of "General adjusting/checking procedure".)

(Back washer: 2551-1385 to 1389, cf. p. 9)

Allowable range

f (mm)	$f'F$ (mm)
70	44.56 ~ 44.76
135	44.56 ~ 44.76
210	44.56 ~ 44.76



(2) Check projection resolving power. (Refer to p. 6 of "General checking/adjusting procedure".)

f (mm)	Distance D (m)	Center ($y'=0$)	$y'=15$	
			S	M
70	2.0 ~ 3.2	100	32	25
135	4.0 ~ 6.3	100	32	25
210	5.0 ~ 8.5	80	32	25

S: Sagittal image

M: Meridional image

(3) Adjust brush position. (Refer to p. 12 of "General checking/adjusting procedure".)

- After assembling, check general function. (Refer to p. 14 of "General checking/adjusting procedure".)
- After assembling, check aperture diameter. (Refer to next page.)

CAUTION: Use PROGRAM PACK Ver. 6.4 or newer for Camera I/O Tester.

Aperture diameter checking

Since aperture diameter checking procedure of this model differs from that of regular A-lens, General checking/adjusting procedure is not usable. Therefore, check aperture diameter following procedure below.

Measuring instruments: Luminance box (Model L-2101, L-222*, L-223*)

: EE tester (Model EE-2101, EE-2111)

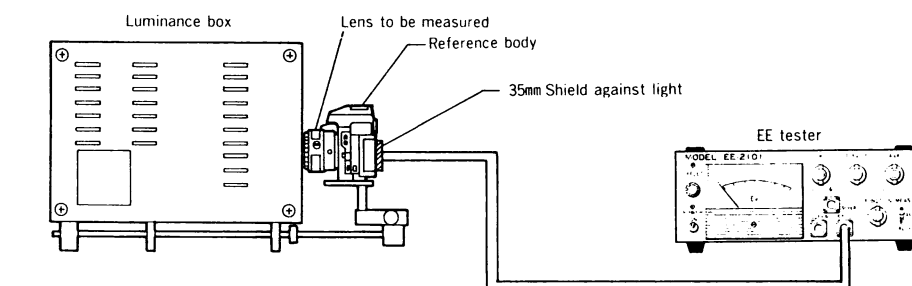
: 35mm light receiver

: Reference body (Select following p.9 of General checking/adjusting procedure)

※ Discontinued model

Preparation

1. Set measuring instruments as below.



● Luminance box
K value : 1.3
Luminance: Ev11

● Lens to be measured
Distance scale ring : ∞
(infinity)
Zoom operation ring : 210mm

● Reference body
Mode : M
Shutter speed setting : bulb
Aperture : f/11
Focus mode : M

● EE tester
FUNCTION : 35
ASA : F
K value : 1.3
MEAS.CALF: CALF
F : 11

Checking procedure

1. Release the shutter several times and take the average of reading values.
2. Make sure that aperture diameter error, which is calculated as below, is within the allowable range.

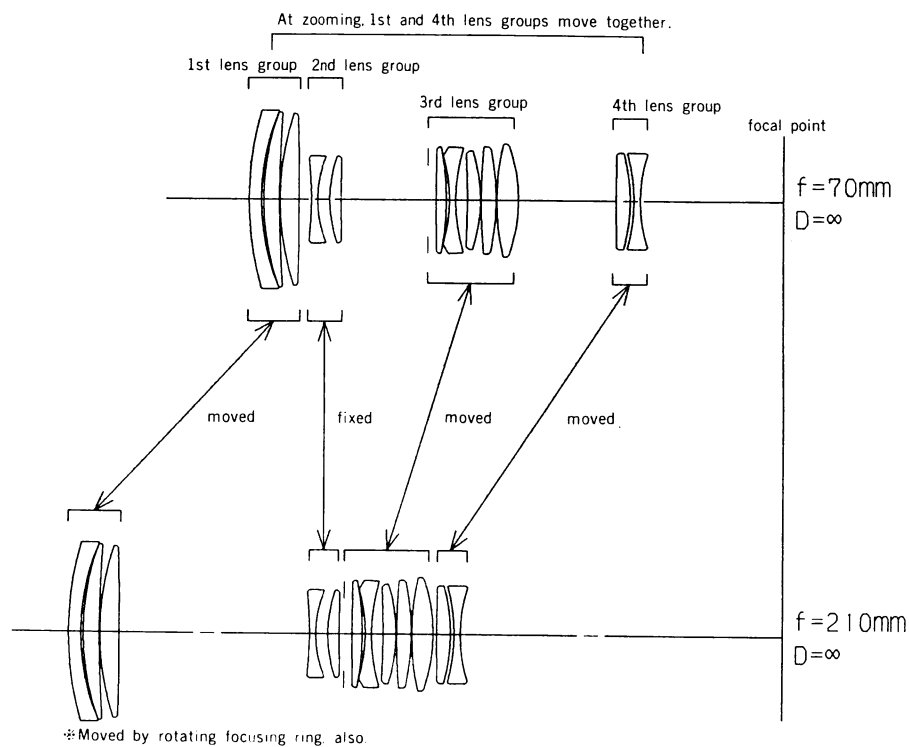
$$\text{Aperture diameter error} = \text{Average of reading values} - \text{Error of Reference body}$$

(cf. p.9 of General checking/adjusting procedure)

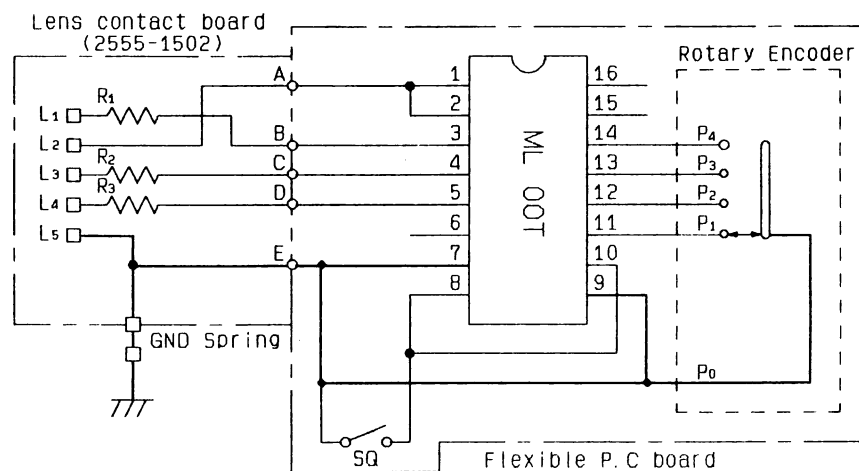
Allowable range
±0.4 Ev

■ Description of focusing and zooming

- System: 4-component mechanical-compensation zoom lens (positive, negative, positive and negative for 1st, 2nd, 3rd, and 4th lens group)
By rotating zoom ring, 1st and 4th lens groups are moved together, and 3rd lens group is moved individually. (2nd lens group is fixed.)
- Aperture of this lens moves with 3rd lens group. F-number changes with zooming. (F-number at full-opening aperture is 3.5 when focal length is 70mm. 4.5 when 210mm.)
- When focusing, focusing lens group (1st lens group) is moved by rotating AF coupler focusing ring.
- As same as focusing system, macro operation is performed by moving focusing lens group.
Maximum magnification is 1:3.9 with focal length at 210mm, and distance scale at 1.1m.



■ Wiring schematic diagram, printed wiring diagram



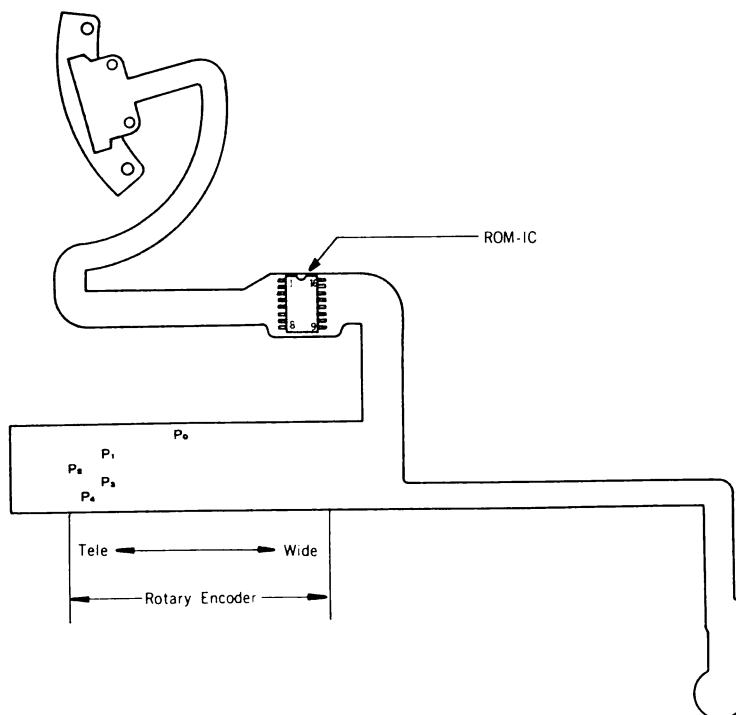
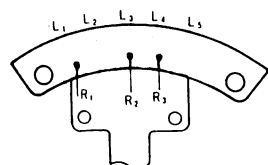
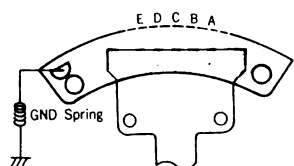
L1-5: Lens signal contact

R1-3: Printed resistor

S-Q: Focus hold button

ML-00T: ROM-IC

A-E : Soldering point between flexible PCB & signal PCB

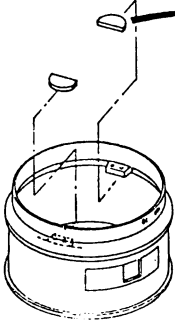
P₀~₄ : Rotary encoder pattern switch
(ON/OFF by zooming)

2588 MODIFICATION PARTS LIST

1. 矢印 (⇒, ⇐) は互換性を示しています。
 - ・ ⇒○ (×) ---- 旧部品を新部品に交換しても良い (いけない)。
 - ・ × (○) ⇐ ---- 新部品を旧部品に交換してはいけない (良い)。
 2. その部品単独の変更ではなく、関連変更部品がある場合は、表の縦の列で関連変更部品を示しています。
 - ・ 表の最後の (⇒, ⇐) は、関連部品セットでの互換性を示しています。
 3. 変更部品には通し No. を付け、以後変更された場合には通し No. に補助 No. (-2, -3, ...) を付けて示します。変更時期は右上に、また修理情報がある場合は、サプリー No. を上に示します。
 1. 新設部品は部品名称を記載します。それ以外の部品名称はパーツリストを参照して下さい。
-
1. Arrows (⇒, ⇐) show parts interchangeability.
 - ・ ⇒○ (×) ---- Previous part is (is not) replaceable by new one.
 - ・ × (○) ⇐ ---- New part is not (is) replaceable by previous one.
 2. When part is not replaceable as a single one, vertical column shows the related parts.
 - ・ Arrows (⇒, ⇐) at base of table show interchangeability of parts as a set.
 3. Modification parts group is numbered serially. Serial number has auxiliary number (-2, -3, ...), which is renewed when modification is carried out. Modification date and supplementary information No., if any, are shown on the table.
 4. Part name of newly added part is shown in the table. Refer to Parts List in Service Manual for other parts.

■ No.1 Parts List P.1

Nov. 1988

Previous				2588-1475-11(2)	New
使用しない Not used			 <p>2588-1475-11(2)</p> <p>ズーム調整ゴム Zoom adjusting rubber</p>		

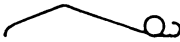
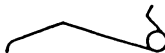
2604 PARTS MODIFICATION LIST

- 矢印 (⇒, ⇐) は互換性を示しています。
 - ⇒○ (×) --- 旧部品を新部品に交換しても良い (いけない)。
 - × (○)⇐ --- 新部品を旧部品に交換してはいけない (良い)。
- その部品単独の変更ではなく、関連変更部品がある場合は、表の縦の列で関連変更部品を示しています。
 - 表の最後の (⇒, ⇐) は、関連部品セットでの互換性を示しています。
- 変更部品には通しNo. を付け、以後変更された場合には通しNo. に補助No. (-2, -3, ...) を付けて示します。修理情報がある場合は、サブリNo. を右上に示します。
- 新設部品は部品名称を記載します。それ以外の部品名称はパーツリストを参照して下さい。

- Arrows (⇒, ⇐) show parts interchangeability.
 - ⇒○ (×) ---- Previous part is (is not) replaceable by new one.
 - × (○)⇐ ---- New part is not (is) replaceable by previous one.
- When part is not replaceable as a single one, vertical column shows the related parts.
 - Arrows (⇒, ⇐) at base of table show interchangeability of parts as a set.
- Modified parts group is numbered serially. Serial number has auxiliary number (-2, -3, ...), which is renewed when modification is carried out. Supplementary information No., if any, is shown on the table.
- Part name of newly added part is shown in the table. Refer to Parts List in Service Manual for other parts.


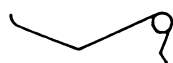
■ No.1 Parts List P.1

Supplementary No. 2605-001

Previous	2 6 0 7 - 1 4 2 1 - 1 3	⇒○	×⇐	2 6 0 7 - 1 4 2 1 - 1 5	New
2 6 0 7 - 1 4 2 1 - 1 3		2 6 0 7 - 1 4 2 1 - 1 5			
					

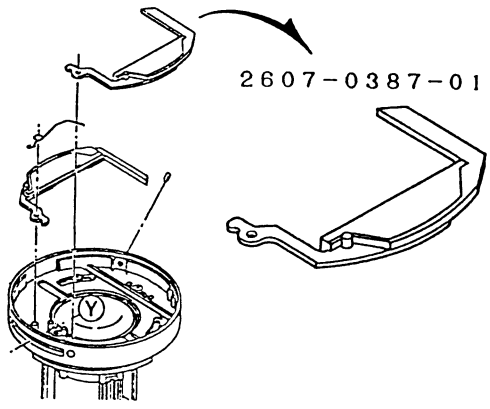
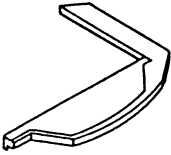

■ No.2 Parts List P.1

Supplementary No. 2605-001

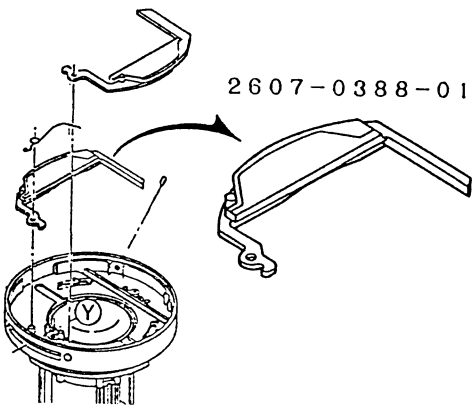
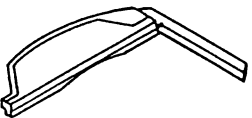

Previous	2 6 0 7 - 1 4 2 2 - 1 3	⇒○	×⇐	2 6 0 7 - 1 4 2 2 - 1 5	New
2 6 0 7 - 1 4 2 2 - 1 3		2 6 0 7 - 1 4 2 2 - 1 5			
					

2 (2604)

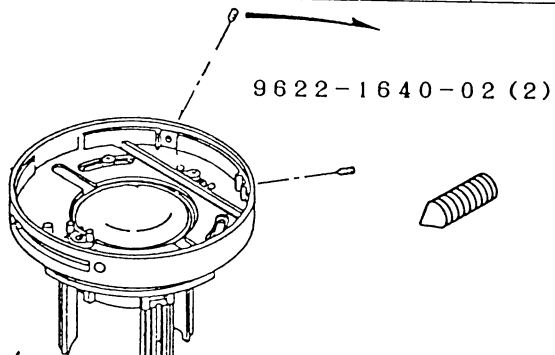

■ No.3 Parts List P.1

Previous	2 6 0 7 - 0 3 8 7 - 0 1	⇒○	×	2 6 0 7 - 1 3 8 7 - 1 3	New
			×	2 6 0 7 - 0 3 9 1 - 0 1	New
			<p>2 6 0 7 - 1 3 8 7 - 1 3</p>  <p>2 6 0 7 - 0 3 9 1 - 0 1</p> 		

■ No.4 Parts List P.1

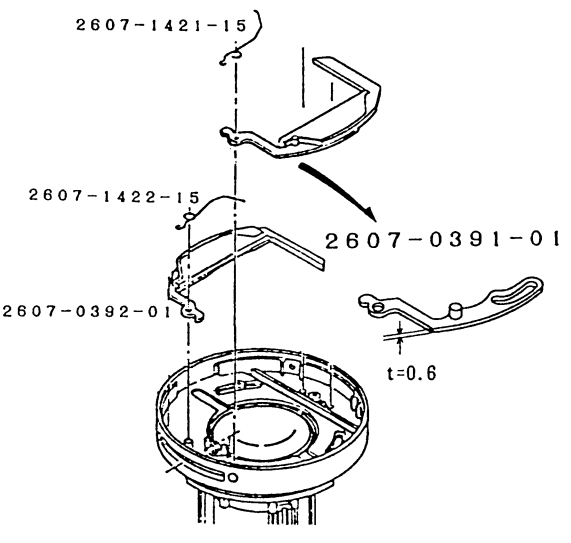
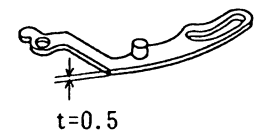
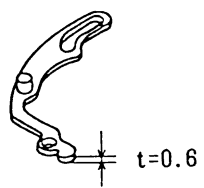
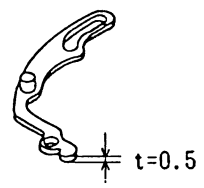




Previous	2 6 0 7 - 0 3 8 8 - 0 1	⇒○	×	2 6 0 7 - 1 3 8 8 - 1 3	New
			×	2 6 0 7 - 0 3 9 2 - 0 1	New
			<p>2 6 0 7 - 1 3 8 8 - 1 3</p>  <p>2 6 0 7 - 0 3 9 2 - 0 1</p> 		

■ No.5 Parts List P.1

Previous	9 6 2 2 - 1 6 4 0 - 0 2 (2)	⇒○	○	9 6 2 2 - 1 6 4 0 - 0 2 (2)	New
			<p>9 6 2 2 - 1 6 4 0 - 0 2 (2)</p>  <p>■ 取り外しは、ドライバー等で奥へ押し込む。 Remove by pushing in with screwdriver, etc. ■ 部品供給は、9 6 2 2 - 1 6 4 0 - 0 2で行います。 Part is supplied as 9 6 2 2 - 1 6 4 0 - 0 2.</p>		

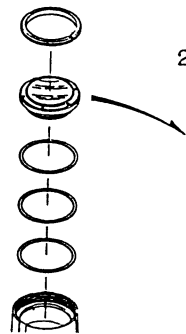
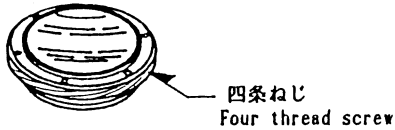
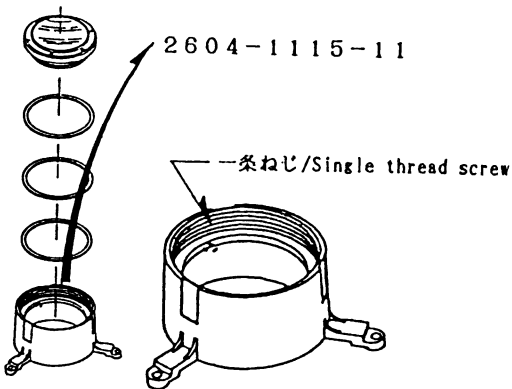
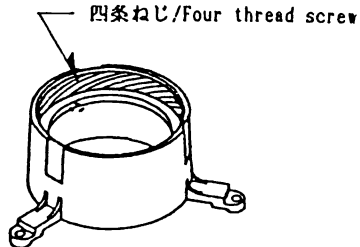
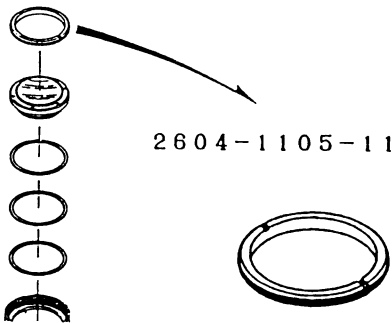
■ No.6 Parts List P.1

Supplementary No. 2605-001

Previous	2 6 0 7 - 0 3 9 1 - 0 1	⇒ ×	× ⇐	2 6 0 4 - 0 3 9 1 - 0 2	New
					
Previous	2 6 0 7 - 0 3 9 2 - 0 1	⇒ ×	× ⇐	2 6 0 4 - 0 3 9 2 - 0 2	New
					
Previous	2 6 0 7 - 1 4 2 1 - 1 5	⇒ ×	× ⇐	2 6 0 4 - 1 4 2 1 - 1 6	New
 密着 / Close adhesion			 すき間 : 大 / Clearance		
Previous	2 6 0 7 - 1 4 2 2 - 1 5	⇒ ×	× ⇐	2 6 0 4 - 1 4 2 2 - 1 6	New
 密着 / Close adhesion			 すき間 : 大 / Clearance		
⇒ ×			× ⇐		

4 (2604)

■ No. 7 Parts List P.2

Previous	2 6 0 4 - 0 0 4 5 - 0 1	⇒ ×	× ⇐	2 6 0 4 - 0 0 4 5 - 0 2	New
 <p>2 6 0 4 - 0 0 4 5 - 0 1</p>		<p>2 6 0 4 - 0 0 4 5 - 0 2</p>  <p>四糸ねじ Four thread screw</p>			
Previous	2 6 0 4 - 1 1 1 5 - 1 1	⇒ ×	× ⇐	2 6 0 4 - 1 1 1 5 - 8 3	New
 <p>2 6 0 4 - 1 1 1 5 - 1 1</p> <p>一糸ねじ/Single thread screw</p>		<p>2 6 0 4 - 1 1 1 5 - 8 3</p>  <p>四糸ねじ/Four thread screw</p>			
Previous	2 6 0 4 - 1 1 0 5 - 1 1	—	—	—	New
 <p>2 6 0 4 - 1 1 0 5 - 1 1</p>		<p>廃止 Discontinue</p>			
⇒ ○		× ⇐			



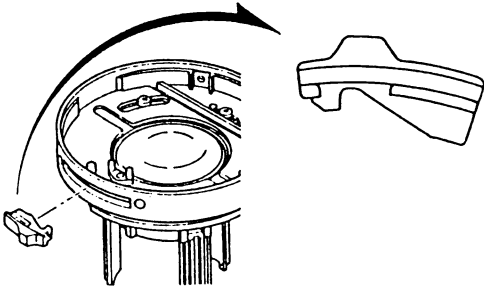

2605 PARTS MODIFICATION LIST

- 矢印 (⇒, ⇐) は互換性を示しています。
 ・ ⇒○ (×) --- 旧部品を新部品に交換しても良い (いけない)。
 ・ × (○) ⇐ --- 新部品を旧部品に交換してはいけない (良い)。
- その部品単独の変更ではなく、関連変更部品がある場合は、表の縦の列で関連変更部品を示しています。
 ・ 表の最後の (⇒, ⇐) は、関連部品セットでの互換性を示しています。
- 変更部品には通しNo. を付け、以後変更された場合には通しNo. に補助No. (-2, -3, ...) を付けて示します。
 修理情報がある場合は、サブリNo. を右上に示します。
- 新設部品は部品名称を記載します。それ以外の部品名称はパーツリストを参照して下さい。

- Arrows (⇒, ⇐) show parts interchangeability.
 ・ ⇒○ (×) ---- Previous part is (is not) replaceable by new one.
 ・ × (○) ⇐ ---- New part is not (is) replaceable by previous one.
- When part is not replaceable as a single one, vertical column shows the related parts.
 ・ Arrows (⇒, ⇐) at base of table show interchangeability of parts as a set.
- Modified parts group is numbered serially. Serial number has auxiliary number (-2, -3, ...), which is renewed when modification is carried out. Supplementary information No., if any, is shown on the table.
- Part name of newly added part is shown in the table. Refer to Parts List in Service Manual for other parts.

■ No.1 Parts List P.1

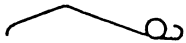
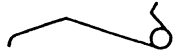
Supplementary No. 2605-001

Previous	2 6 0 7 - 1 3 9 6 - 1 1	⇒×	×⇐	2 6 0 7 - 1 3 9 6 - 1 2	New
2 6 0 7 - 1 3 9 6 - 1 1 				2 6 0 7 - 1 3 9 6 - 1 2 	
Previous	2 6 0 7 - 1 4 0 7 - 1 1	⇒×	×⇐	2 6 0 7 - 1 4 0 7 - 1 2	New
2 6 0 7 - 1 4 0 7 - 1 1 				2 6 0 7 - 1 4 0 7 - 1 2 	
⇒○				×⇐	

2 (2605)


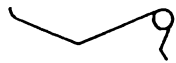
■ No.2 Parts List P.1

Supplementary No.2605-001

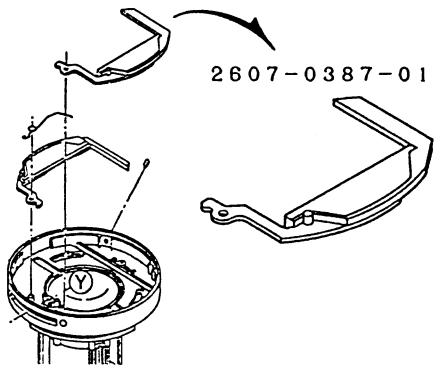
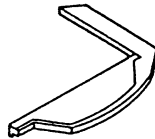

Previous	2 6 0 7 - 1 4 2 1 - 1 3	⇒○	×←	2 6 0 7 - 1 4 2 1 - 1 5	New
2607-1421-13 			2607-1421-15 		

■ No.3 Parts List P.1

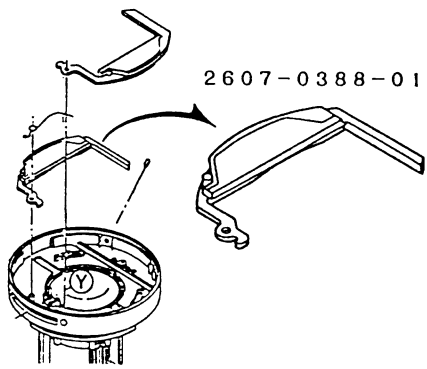


Supplementary No.2605-001

Previous	2 6 0 7 - 1 4 2 2 - 1 3	⇒○	×←	2 6 0 7 - 1 4 2 2 - 1 5	New
2607-1422-13 			2607-1422-15 		

■ No.4 Parts List P.1

Previous	2 6 0 7 - 0 3 8 7 - 0 1	⇒○	×←	2 6 0 7 - 1 3 8 7 - 1 3	New
 2607-0387-01			×←	2 6 0 7 - 0 3 9 1 - 0 1	New
			2607-1387-13  2607-0391-01 		

■ No.5 Parts List P.1

Previous	2 6 0 7 - 0 3 8 8 - 0 1	⇒○	×←	2 6 0 7 - 1 3 8 8 - 1 3	New
 2607-0388-01			×←	2 6 0 7 - 0 3 9 2 - 0 1	New
			2607-1388-13  2607-0392-01 		

■ No.6 Parts List P.1

Previous	9 6 2 2 - 1 6 4 0 - 0 2 (2)	⇒○	○⇐	9 6 2 2 - 1 6 4 0 - 0 2 (2)	New
		<p>■取り外しは、ドライバー等で奥へ押し込む。 Remove by pushing in with screwdriver, etc. ■部品供給は、9 6 2 2 - 1 6 4 0 - 0 2で行います。 Part is supplied as 9 6 2 2 - 1 6 4 0 - 0 2.</p>			

■ No.7 Parts List P.1

Supplementary No.2605-001

Previous	2 6 0 7 - 0 3 9 1 - 0 1	⇒×	×⇐	2 6 0 4 - 0 3 9 1 - 0 2	New
Previous	2 6 0 7 - 0 3 9 2 - 0 1	⇒×	×⇐	2 6 0 4 - 0 3 9 2 - 0 2	New
Previous	2 6 0 7 - 1 4 2 1 - 1 5	⇒×	×⇐	2 6 0 4 - 1 4 2 1 - 1 6	New
Previous	2 6 0 7 - 1 4 2 2 - 1 5	⇒×	×⇐	2 6 0 4 - 1 4 2 2 - 1 6	New
⇒○		×⇐			

4 (2605)

■ No.8 Parts List P.1

Previous	2 6 0 7 - 1 3 8 5 - 1 1	—	—	2 6 0 4 - 1 3 8 5 - 1 1	New
Previous	2 6 0 7 - 1 3 8 6 - 1 1	—	—	2 6 0 4 - 1 3 8 6 - 1 1	New
Previous	2 6 0 7 - 1 3 8 7 - 1 3	—	—	2 6 0 4 - 1 3 8 7 - 1 3	New
Previous	2 6 0 7 - 1 3 8 8 - 1 3	—	—	2 6 0 4 - 1 3 8 8 - 1 3	New
Previous	2 6 0 7 - 1 3 9 3 - 1 1	—	—	2 6 0 4 - 1 3 9 3 - 1 1	New
Previous	2 6 0 7 - 1 3 9 4 - 1 2	—	—	2 6 0 4 - 1 3 9 4 - 1 2	New
Previous	2 6 0 7 - 1 3 9 5 - 1 1	—	—	2 6 0 4 - 1 3 9 5 - 1 1	New
Previous	2 6 0 7 - 1 3 9 6 - 1 2	—	—	2 6 0 4 - 1 3 9 6 - 1 2	New
Previous	2 6 0 7 - 1 4 0 7 - 1 2	—	—	2 6 0 4 - 1 4 0 7 - 1 2	New
Previous	2 6 0 7 - 1 4 1 8 - 1 1	—	—	2 6 0 4 - 1 4 1 8 - 1 1	New
<p>■ 上記部品の管理コードを 2 6 0 7 から 2 6 0 4 に変更して下さい。 Modify the model code of parts above from 2 6 0 7 to 2 6 0 4.</p>					

■ No.8 Parts List P.1

Previous	2 6 0 7 - 1 3 8 5 - 1 1	—	—	2 6 0 4 - 1 3 8 5 - 1 1	New
Previous	2 6 0 7 - 1 3 8 6 - 1 1	—	—	2 6 0 4 - 1 3 8 6 - 1 1	New
Previous	2 6 0 7 - 1 3 8 7 - 1 3	—	—	2 6 0 4 - 1 3 8 7 - 1 3	New
Previous	2 6 0 7 - 1 3 8 8 - 1 3	—	—	2 6 0 4 - 1 3 8 8 - 1 3	New
Previous	2 6 0 7 - 1 3 9 3 - 1 1	—	—	2 6 0 4 - 1 3 9 3 - 1 1	New
Previous	2 6 0 7 - 1 3 9 4 - 1 2	—	—	2 6 0 4 - 1 3 9 4 - 1 2	New
Previous	2 6 0 7 - 1 3 9 5 - 1 1	—	—	2 6 0 4 - 1 3 9 5 - 1 1	New
Previous	2 6 0 7 - 1 3 9 6 - 1 2	—	—	2 6 0 4 - 1 3 9 6 - 1 2	New
Previous	2 6 0 7 - 1 4 0 7 - 1 2	—	—	2 6 0 4 - 1 4 0 7 - 1 2	New
Previous	2 6 0 7 - 1 4 1 8 - 1 1	—	—	2 6 0 4 - 1 4 1 8 - 1 1	New
■上記部品の管理コードを2 6 0 7から2 6 0 4に変更して下さい。 Modify the model code of parts above from 2 6 0 7 to 2 6 0 4.					